Remarks

This amendment is in response to the Final Office Action mailed on April 17, 2006. In view of the following remarks, Applicant respectfully requests reconsideration and allowance of claims 1-22.

In the Office Action, claim 22 was rejected under 35 U.S.C. §102(a) as being anticipated by Bode (U.S. Pat. No. 6,478,470). Bode discloses a needle bearing including bearing needles 4 and an outer ring member 1. The bearing needles 4 have two outer parts 6, 7, joined by a middle part 5. The middle part 5 has a reduced diameter forming a stepped bearing needle. See col. 2, lines 34-47 of Bode.

Claim 22 of the present application requires both an inner ring and an outer ring. Bode does not disclose or suggest an outer ring. Moreover, claim 22 requires a roller including a concave radial race surface interposed between axially spaced radial race surfaces. Bode discloses a roller having axially spaced radial race surfaces. However, the surface interposed between the race surfaces disclosed in Bode is neither concave nor a race surface. Accordingly, Bode does not disclose each and every element of claim 22. Therefore, Bode cannot anticipate claim 22, and Applicant respectfully requests the withdrawal of the rejection of claim 22 under 35 U.S.C. §102(a) for being anticipated by Bode.

In the Office Action, claim 22 was rejected under 35 U.S.C. §103(a) as being unpatentable over Peterson (U.S. Pat. No. 1,973,994) in view of Bode. The Office Action asserts that one skilled in the art would have utilized the lubrication groove formed in an outer ring member between two axially spaced outer race surfaces as taught by Bode with the bearing assembly of Peterson so as to provide the bearing with an additional lubricant reservoir which is easy to make and does not enlarge the axial dimension of said bearing.

Peterson discloses a self-aligning bearing including a convex roller interposed between an inner ring member and an outer ring member. The outer bearing is received in a cylindrical bore of a housing. Lubricant is supplied to the bearing disclosed in Peterson through an opening at the top of the housing. A longitudinal channel 18b is formed in an internal surface of the housing to extend the lubricant supply opening outwardly beyond one or both ends of the outer ring member, so that lubricant may be freely supplied to the bearing inside the housing.

Bode discloses a needle bearing including a lubrication groove formed in an outer

ring member. Needle bearings are a special type of bearing specifically for use in high load carrying applications, and require bearing needles having a high length to diameter ratio to form a bearing with a small radial structural height. The small radial structural height introduces special problems requiring the lubrication groove disclosed in Bode. See col. 1, lines 12-43 of Bode. These special problems do not plague self-aligning bearings having concave rollers, such as disclosed in Peterson or claimed in the present application.

Bode does not disclose or suggest how or why a lubrication groove in an outer ring member is easy to make compared to not providing the additional lubrication groove or providing other known means for lubricating a bearing, such as disclosed in Peterson. Accordingly, merely asserting that an outer ring member with a lubrication groove is easy to make, without more, is insufficient motivation to provide a lubrication groove in a bearing, such as disclosed in Peterson.

The Office Action asserts that an additional motivating factor to combine Peterson and Bode is that providing a lubrication groove in an outer ring member does not enlarge the axial dimension of the resulting bearing. Peterson, however, discloses a self-aligning bearing in a housing which is not subject to the same conditions or constraints as a needle bearing. In particular, restrictions on enlarging an axial dimension a small amount are not present in self-aligning bearings, such as disclosed in Peterson. Accordingly, not enlarging the axial dimension of a self-aligning bearing to accommodate a lubrication groove is not a motivation to change a design of a self-aligning bearing. Therefore, even this asserted motivation, absent impermissible hindsight reconstruction using teachings gleaned from Applicant's disclosure, is insufficient for one skilled in the art to combine the teaching of Bode with Peterson and arrive at Applicant's claimed invention. In view of the above, Applicant respectfully requests withdrawal of the rejection of the claim 22 under 35 U.S.C. §103(a) for being unpatentable over Peterson in view of Bode.

In the Office Action, claim 22 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ai (U.S. Pat. No. 6,354,745) in view of Bode. Ai discloses a self-aligning bearing including an inner ring member and an outer ring member defining a raceway space therebetween. A roller disposed in the raceway space includes a cylindrical radial race surface interposed between axially spaced radial race surfaces. The outer ring member includes a single concave outer race surface engaging both of the axially spaced radial race

surfaces of the roller. As discussed above, contrary to the assertion in the Office Action, there is no motivation to combine the teaching of Bode disclosing a solution to a problem specific to needle bearings with a non-needle bearing, such as disclosed in Ai and Peterson. Accordingly, there is no motivation, absent impermissible hindsight reconstruction using teachings gleaned from Applicant's disclosure, for one skilled in the art to combine the teaching or Bode with Ai and arrive at Applicant's claimed invention. In view of the above, Applicant respectfully requests withdrawal of the rejection of the claim 22 under 35 U.S.C. §103(a) for being unpatentable over Ai in view of Bode.

In the Office Action, claims 1-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bode in view of Diedrich (U.S. Pat. No. 5,080,502). As discussed above, Bode fails to disclose an inner ring member or a roller including a concave radial race surface interposed between axially spaced radial race surfaces. Both of these limitations are included in independent claims 1 and 12 of the present application. Diedrich does not disclose or suggest a roller including a concave radial race surface interposed between axially spaced radial race surfaces, and thus fails to satisfy the deficiency of Bode. Claims 2-11 and 13-21 depend from one of claims 1 and 12, which are believed allowable. Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. §103(a) for being unpatentable over Bode in view of Diedrich is respectfully requested.

In the Office Action, claims 1-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Peterson in view of Bode, as applied to claim 22, and further in view of Diedrich. As discussed above, absent impermissible hindsight reconstruction using teachings gleaned from Applicant's disclosure, there is insufficient motivation to combine Peterson and Bode. Diedrich fails to provide such motivation. Accordingly, a rejection under 35 U.S.C. §103(a) for being unpatentable over Peterson in view of Bode, and further in view of Diedrich is improper. Claims 2-11 and 13-21 depend from one of claims 1 and 12, which are believed allowable. Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. §103(a) for being unpatentable over Peterson in view of Bode, as applied to claim 22, and further in view of Diedrich is respectfully requested.

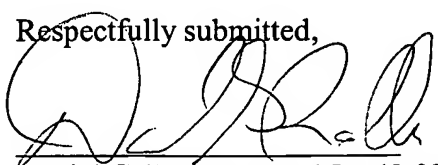
In the Office Action, claims 1-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ai in view of Bode, as applied to claim 22, and further in view of

Diedrich. As discussed above, absent impermissible hindsight reconstruction using teachings gleaned from Applicant's disclosure, there is insufficient motivation to combine Peterson and Bode. Diedrich fails to provide such motivation. Accordingly, a rejection under 35 U.S.C. §103(a) for being unpatentable over Ai in view of Bode, and further in view of Diedrich is improper. Claims 2-11 and 13-21 depend from one of claims 1 and 12, which are believed allowable. Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. §103(a) for being unpatentable over Ai in view of Bode, as applied to claim 22, and further in view of Diedrich is respectfully requested.

Applicant respectfully notes that dependent claims 6 and 17 are allowable in their own right. Claims 6 and 17 include the limitation of "at least one of said flanges includes a radially inwardly opening groove and at least one of said collars includes a circumferential groove opening toward said radially inwardly opening groove of said at least one of said flanges, and said seal includes an outer radial edge engaging said radially inwardly opening groove of said at least one of said flanges and an inner radial edge engaging said circumferential groove." Diedrich does disclose a seal having a radially outer edge received in a radially inwardly opening groove of one of the flanges. However, Diedrich does not disclose a collar including a circumferential groove engaging an inner radial edge of the seal. None of the other cited references satisfy this deficiency. Accordingly, Applicant respectfully asserts that claims 6 and 17 are allowable over the cited references for this additional reason.

In view of the above remarks, Applicant respectfully requests reconsideration and allowance of claims 1-22. No additional fees for filing this response are believed to be due. However, if such fees are due, including any fees for an extension of time to respond, the Commissioner is hereby authorized to charge them to deposit account no. 17-0055.

Respectfully submitted,



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